Form PTO-447A (Rev. 7-98) | Staple to face of Application | U.S. DEPARTMENT OF COMMERCE PATENT & TRADEMARK OFFICE

APPLICATION TRANSFER REQUEST FOR S.N. 09763753

Section I. TRANSFER REQUEST BY

Name **RIMELL, SAMUEL G** Date **6/29/2004**

TO: Art Unit **2123** Class/sub /

FROM: A.U. ~~2123~~ 2177 Class **703**

REASON:
Not accepted. Invention not directed to database structure, but computer software analysis using graph. Try 717/144 or 717/156

Gatekeeper concurrence _____

Section IIa. DISPOSITION BY RECEIVING TC

By: _____ **A.U.** **Date** _____

NOT ACCEPTED ☐ Forward to receiving TC Post Classifier

REASON:

Section IIb. DISPOSITION BY RECEIVING TC POST CLASSIFIER

☐ This dispute was resolved. Forward to TC/AU Class/Sub / Post Classifier _____ Date _____

Concurring _____

☐ This dispute was not resolved, forward to DISPUTE RESOLUTION PANEL

Post Classifier Assessment:

Gatekeeper concurrence _____ Post Classifier _____ Date _____

Section III. DISPOSITION BY DISPUTE RESOLUTION PANEL

Date _____

Panel Decision: Forward To Technology Center/Art Unit Class/sub /

REASON:

Panel Member _____ Concurring Panel Member _____

h e eb e e c fe

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  *      and New Year's Day.                                          *
  *                                                                   *
  * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * *
FILE 'USPAT' ENTERED AT 09:41:23 ON 08 MAY 1998

  * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * *
  *              W E L C O M E   T O   T H E                          *
  *         U. S.   P A T E N T   T E X T   F I L E                   *
  * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * *

=> s zikria, bashir/in

L1            1 ZIKRIA, BASHIR/IN

=> d


1.  5,565,187, Oct. 15, 1996, Methods for studying capillary circulation
using fish fry and tadpoles; Bashir Zikria, et al., 424/9.6, 9.1, 9.2
[IMAGE AVAILABLE]

=> e zikria

E#      FILE             FREQUENCY  TERM
--      ----             ---------  ----
E1      USPAT                    2     ZIKMUND/BI
E2      USPAT                    4     ZIKOLOVA/BI
E3      USPAT                    3 --> ZIKRIA/BI
E4      USPAT                   30     ZIL/BI
E5      USPAT                    2     ZILA/BI
E6      USPAT                    8     ZILACTIN/BI
E7      USPAT                    1     ZILAG/BI
E8      USPAT                    4     ZILAHY/BI
E9      USPAT                    1     ZILANE/BI
E10     USPAT                    3     ZILASCORB/BI
E11     USPAT                    1     ZILAT/BI
E12     USPAT                   10     ZILBER/BI

=> s E3

L2            3 ZIKRIA/BI

=> d L2 1-3


1.  5,704,358, Jan. 6, 1998, Method and apparatus for diagnosing
capillary leak; Bashir A. Zikria, 600/368, 431 [IMAGE AVAILABLE]

2.  5,685,302, Nov. 11, 1997, Method for determining plasma volume,
determination of blood volume thereby, and apparatus therefore; Bashir A.
Zikria, et al., 600/370, 300, 371, 431, 436 [IMAGE AVAILABLE]

3.  5,565,187, Oct. 15, 1996, Methods for studying capillary circulation
using fish fry and tadpoles; Bashir Zikria, et al., 424/9.6, 9.1, 9.2
[IMAGE AVAILABLE]

=> s antioxidant# and (capillary(W)endothelial(W)junction#)

          45635 ANTIOXIDANT#
          40683 CAPILLARY
```

```
          4803 ENDOTHELIAL
        153434 JUNCTION#
             7 CAPILLARY(W)ENDOTHELIAL(W)JUNCTION#
L3           1 ANTIOXIDANT# AND (CAPILLARY(W)ENDOTHELIAL(W)JUNCTION#)

=> d
```

1. 5,728,707, Mar. 17, 1998, Treatment and prevention of primary and metastatic neoplasms with salts of aminoimidazole carboxamide; Felix Wehrmann, 514/274; 424/85.4, 85.7; 514/2, 21, 386 [IMAGE AVAILABLE]

```
=> d Kwic
```

US PAT NO: 5,728,707 [IMAGE AVAILABLE] L3: 1 of 1

SUMMARY:

BSUM(13)

Even . . . S. A., and Maddocks, J. L., 1984, Br. J. Clin. Pharmac. 17:417-422. In addition, AICA was found to exhibit an **antioxidant** activity and increase the superoxide dismutase expression in lymphocytes incubated in vitro. Muzes, G., et al., 1990, Acta Physiologica Hungarica. . .

DETDESC:

DETD(9)

Metastases, . . . with adherent lymphocytes and platelets are trapped in capillaries and the tumor cell membrane interacts with the capillary endothelium. The **capillary endothelial junctions** retract, and tumor cell ligands bind to receptors on the endothelial and basement membranes. Tumor cells then release collagenase IV,. . .

DETDESC:

DETD(11)

Since . . . and Terao, S., et al., 1985, Advances in Prostagl. Thromb. Leuk Res. 15:315-315. In addition, AICA was found to have **antioxidant** activity and to increase superoxide dismutase activity. Muzes, G. et al., 1990, Acta Physiologica Hungarica 76:183-190.

DETDESC:

DETD(12)

Therefore, administration of AICA or a salt thereof, which are imidazole compounds, can result in inhibition of thromboxane A.sub.2 and/or enhanced **antioxidant** defenses against oxidants and free radicals by superoxide dismutases. The net result is the inhibition of metastatic neoplasms in an. . .

```
=> s vitamin C or (ascorbic(w)acid)

         13454 VITAMIN
       1242249 C
```

```
          2500 VITAMIN C
                 (VITAMIN(W)C)
         19216 ASCORBIC
        426513 ACID
         15988 ASCORBIC(W)ACID
L4       17088 VITAMIN C OR (ASCORBIC(W)ACID)

=> s hydroxyethylstarch and L4

           106 HYDROXYETHYLSTARCH
L5           3 HYDROXYETHYLSTARCH AND L4

=> d l5 1-3


1.  5,470,843, Nov. 28, 1995, Carbohydrate-containing polymers, their
preparation and use; Wilhelm Stahl, et al., 514/61, 25, 54, 55, 56, 60;
525/32.2; 536/4.1, 17.2, 18.5, 18.7, 20, 21, 45, 102, 124 [IMAGE
AVAILABLE]

2.  5,374,624, Dec. 20, 1994, Fluorocarbon blood substitute; Leigh D.
Segel, 514/21, 672, 673, 749, 756, 759, 761 [IMAGE AVAILABLE]

3.  4,148,689, Apr. 10, 1979, Immobilization of microorganisms in a
hydrophilic complex gel; Tsunetoshi Hino, et al., 435/182, 176, 177, 180;
502/7 [IMAGE AVAILABLE]

=> d his


     (FILE 'USPAT' ENTERED AT 09:41:23 ON 08 MAY 1998)
L1           1 S ZIKRIA, BASHIR/IN
               E ZIKRIA
L2           3 S E3
L3           1 S ANTIOXIDANT# AND (CAPILLARY(W)ENDOTHELIAL(W)JUNCTION#)
L4       17088 S VITAMIN C OR (ASCORBIC(W)ACID)
L5           3 S HYDROXYETHYLSTARCH AND L4

=> superoxide(W)dismutase and L4

'SUPEROXIDE(W)DISMUTASE' IS NOT A RECOGNIZED COMMAND

=> s superoxide(W)dismutase and L4

          2198 SUPEROXIDE
          1159 DISMUTASE
          1133 SUPEROXIDE(W)DISMUTASE
L6         218 SUPEROXIDE(W)DISMUTASE AND L4

=> s catalase and l6

          3409 CATALASE
L7         121 CATALASE AND L6

=> s L7 and glutathione(W)peroxidase

          3128 GLUTATHIONE
          8512 PEROXIDASE
           172 GLUTATHIONE(W)PEROXIDASE
L8          32 L7 AND GLUTATHIONE(W)PEROXIDASE
```

```
=> s hydroxyethyl(W)rutoside

         58413 HYDROXYETHYL
            28 RUTOSIDE
L9          15 HYDROXYETHYL(W)RUTOSIDE

=> s L8 and L9

L10          0 L8 AND L9

=> s L8 and cAMP

          3414 CAMP
L11          2 L8 AND CAMP

=> d L11 1-2


1.  5,725,804, Mar. 10, 1998, Non-crosslinked protein particles for
therapeutic and diagnostic use; Richard C. K. Yen, 252/314, 311; 424/484,
491; 514/776, 937, 965 [IMAGE AVAILABLE]

2.  5,616,311, Apr. 1, 1997, Non-crosslinked protein particles for
therapeutic and diagnostic use; Richard C. K. Yen, 424/1.33, 1.29, 1.37,
484, 499; 427/2.14, 2.21, 213.3, 213.33; 428/402.2, 402.24; 435/177;
935/54 [IMAGE AVAILABLE]

=> d L1 1-2 kwic

      1 ANSWERS ARE AVAILABLE. SPECIFIED ANSWER NUMBER EXCEEDS ANSWER SET
SIZE
ENTER ANSWER NUMBER OR RANGE (1):end


=> d his


     (FILE 'USPAT' ENTERED AT 09:41:23 ON 08 MAY 1998)
L1             1 S ZIKRIA, BASHIR/IN
                 E ZIKRIA
L2             3 S E3
L3             1 S ANTIOXIDANT# AND (CAPILLARY(W)ENDOTHELIAL(W)JUNCTION#)
L4         17088 S VITAMIN C OR (ASCORBIC(W)ACID)
L5             3 S HYDROXYETHYLSTARCH AND L4
L6           218 S SUPEROXIDE(W)DISMUTASE AND L4
L7           121 S CATALASE AND L6
L8            32 S L7 AND GLUTATHIONE(W)PEROXIDASE
L9            15 S HYDROXYETHYL(W)RUTOSIDE
L10            0 S L8 AND L9
L11            2 S L8 AND CAMP

=> d L11 1-2 kwic


US PAT NO:      5,725,804 [IMAGE AVAILABLE]              L11: 1 of 2

SUMMARY:

BSUM(32)
```

Still . . . acids, alpha-hydroxy carboxylic acids and dicarboxylic acids. Examples in this group include lactic acid (D and L forms), succinic acid, **ascorbic acid** and 1-ketoglutaric acid.

DETDESC:

DETD(15)

. . .

Acid	500	1000
Thioctic Acid (oxidized)	10	500
Stannous Chloride	250	2500
Succinic Acid (4*)	1000	2500
Ascorbic Acid (4*)	1000	2500
1-Ketoglutaric Acid (4*)	500	1000
Cysteine (4*)	500	2500
Manganese Chloride (4*)	1000	2500. . .

DETDESC:

DETD(227)

The . . . within much less than one hour and without the need for other purification. Examples of reducing agents are dithiothreitol, dithioerythritol, **ascorbic acid**, 2-mercaptoethanol, and pyrophosphate. In addition, the reduced TcO.sub.2.sup.- may first be stabilized by an intermediate product involving D-glucarate.

DETDESC:

DETD(248)

13-Azaprostanoic . . . G2, H2); 16-16-Dimethyl-prostaglandin E2; 6-Keto-prostaglandin F1.alpha.; 2,3-Dinor 6-keto-prostaglandin F1.alpha.; 9,11-Dideoxy-9.alpha.,11.alpha.-methanoepoxyprostaglandin-F2.alpha.; Carbacyclin; Thromboxanes (CTA2, B2, A2); p-Arbutin; H-Arg-gly-Asp-OH; H-Arg-Gly-Asp-Ser-Pro-Ala-Ser-Ser-Lys-Pro-OH; Ascorbate oxidase; **ascorbic acid**; asparagine; aspartic acid; arachidonic acid

DETDESC:

DETD(956)

Alteplase; Anistreplase; Adenosine Deaminase; Amylase; Angiotensin I, II, III; Calmodulin; Carboxypeptidase; **Catalase**; Cellulase; Cholesterol oxidase; Cholinesterase; Chymotrypsin; Collagenase; Complement cascade proteins; Creatine phosphokinase; Deoxyribonuclease I, II; Dipeptidyl peptidase; DNA polymerase; Endoproteinase; Endonucleases;. . . Esterases; beta-Galacatosidase; Galactose oxidase; Galactose dehydrogenase; Glucose dehydrogenase; Glucose oxidase; Glucose-6-phosphate dehydrogenase; Glucuronidase/Aryl sulfatase; Glutamate-oxaloacetate transaminase; Glutamate-pyruvate transaminase; Glutathione reductase; **Glutathione peroxidase**; Glycopeptidase; Hementin; Hemoglobin; Hexokinase; Hyaluronidase; Lactate dehydrogenase; Lactoperoxidase; Lactamase; Lipase; Myokinase;

Neuraminidase; Nicotinamide-adenine Dinucleotide kinase; Nicotinamide-adenine Dinucleotide oxidase; Nuclease; Nucleosidase;. . . Proteases; Protein Kinase C; Proteinase K; Renin; Reverse transcriptase; Ribonuclease (A, T1, T2, U2); RNA polymerase; Sialytransferase; Streptokinase; Subtilisin A; **Superoxide dismutase**; Terminal transferase; Urease; Urokinase

DETDESC:

DETD(962)
Protein . . . beta-Thromboglobulin; Thrombospondin; Transferrin (apo-, partial iron, holo); Tumor Necrosis factor; Vitronectin, Forskolin, Integrins; caged compounds (caged ATP, caged INsP3, caged **cAMP**, caged cGMP, caged GTP, caged carbamoyl chorine); Mezerein; Plasminogen; Aminocaproic acid; desmopressin acetate; Activase

US PAT NO: 5,616,311 [IMAGE AVAILABLE] L11: 2 of 2

DETDESC:

DETD(171)

The . . . within much less than one hour and without the need for other purification. Examples of reducing agents are dithiothreitol, dithioerythritol, **ascorbic acid**, 2-mercaptoethanol, and pyrophosphate. In addition, the reduced TcO.sub.2.sup.- may first be stabilized by an intermediate product involving D-glucarate.

DETDESC:

DETD(192)
13-Azaprostanoic . . . H2); 16-16-Dimethyl-prostaglandin E2; 6-Keto-prostaglandin F1.alpha.; 2,3-Dinor 6-ketoprostaglandin F1.alpha.; 9,11-Dideoxy-9.alpha., 11.alpha.-methanoepoxyprostaglandin-F2.alpha.; Carbacyclin; Thromboxanes (CTA2, B2, A2); p-Arbutin; H-Arg-gly-Asp-OH; H-Arg-Gly-Asp-Ser-Pro-Ala-Ser-Ser-Lys-Pro-OH; Ascorbate oxidase; **ascorbic acid**; asparagine; aspartic acid; arachidonic acid

DETDESC:

DETD(900)
Alteplase; Anistreplase; Adenosine Deaminase; Amylase; Angiotensin I, II, III; Calmodulin; Carboxypeptidase; **Catalase**; Cellulase; Cholesterol oxidase; Cholinesterase; Chymotrypsin; Collagenase; Complement cascade proteins; Creatine phosphokinase; Deoxyribonuclease I, II; Dipeptidyl peptidase; DNA polymerase; Endoproteinase; Endonucleases;. . . Esterases; beta-Galacatosidase; Galactose oxidase; Galactose dehydrogenase; Glucose dehydrogenase; Glucose oxidase; Glucose-6-phosphate dehydrogenase; Glucuronidase/Aryl sulfatase; Glutamate-oxaloacetate transaminase; Glutamate-pyruvate transaminase; Glutathione reductase; **Glutathione peroxidase**; Glycopeptidase; Hementin; Hemoglobin; Hexokinase; Hyaluronidase; Lactate dehydrogenase; Lactoperoxidase; Lactamase; Lipase; Myokinase; Neuraminidase; Nicotinamide-adenine Dinucleotide kinase; Nicotinamide-adenine Dinucleotide oxidase; Nuclease; Nucleosidase;. . . Proteases; Protein Kinase C; Proteinase K; Renin; Reverse transcriptase; Ribonuclease (A, T1, T2, U2); RNA polymerase; Sialytransferase; Streptokinase; Subtilisin A; **Superoxide dismutase**; Terminal transferase; Urease; Urokinase

DETDESC:

DETD(906)
Protein . . . beta-Thromboglobulin; Thrombospondin; Transferrin (apo-, partial iron, holo); Tumor Necrosis factor; Vitronectin, Forskolin, Integrins; caged compounds (caged ATP, caged INsP3, caged **cAMP**, caged cGMP, caged GTP, caged carbamoyl chorine); Mezerein; Plasminogen; Aminocaproic acid; desmopressin acetate; Activase

=> log y

U.S. Patent & Trademark Office LOGOFF AT 09:56:36 ON 08 MAY 1998

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=> file embase

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                                                         ENTRY    SESSION
FULL ESTIMATED COST                                       0.15       0.15

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 FILE COVERS 1974 TO 7 May 1998 (19980507/ED)

 This file contains CAS Registry Numbers for easy and accurate
 substance identification.

=> s cAMP and Neurospora and superoxide

         33094 CAMP
          3053 NEUROSPORA
         23769 SUPEROXIDE
L1           2 CAMP AND NEUROSPORA AND SUPEROXIDE

=> d L1 1-2
```

L1 ANSWER 1 OF 2 EMBASE COPYRIGHT 1998 ELSEVIER SCI. B.V.
AN 90276564 EMBASE
TI Pharmacogenetics of cyclic guanylate, antioxidants, and antioxidant enzymes in **Neurospora**.
AU Munkres K.D.
CS Laboratory of Molecular Biology, University of Wisconsin, 1525 Linden Drive, Madison, WI 53706, United States
SO FREE RADIC. BIOL. MED., (1990) 9/1 (29-38).
ISSN: 0891-5849 CODEN: FRBMEH
CY United States
DT Journal
FS 004 Microbiology
029 Clinical Biochemistry
LA English

L1 ANSWER 2 OF 2 EMBASE COPYRIGHT 1998 ELSEVIER SCI. B.V.
AN 84184692 EMBASE
TI Genetic control of cellular longevity in **Neurospora** crassa: A relationship between cyclic nucleotides, antioxidants, and antioxygenic enzymes.
AU Munkres K.D.; Rana R.S.
CS Laboratory of Molecular Biology, The University of Wisconsin, Madison, WI 53706, United States
SO AGE, (1984) 7/2 (30-35).
CODEN: AGEEDB
CY United States
LA English

=> d his

(FILE 'HOME' ENTERED AT 20:07:46 ON 08 MAY 1998)

FILE 'EMBASE' ENTERED AT 20:07:55 ON 08 MAY 1998
L1 2 S CAMP AND NEUROSPORA AND SUPEROXIDE

=> d
L1 2 all

L1 ANSWER 2 OF 2 EMBASE COPYRIGHT 1998 ELSEVIER SCI. B.V.
AN 84184692 EMBASE
TI Genetic control of cellular longevity in **Neurospora** crassa: A relationship between cyclic nucleotides, antioxidants, and antioxygenic enzymes.
AU Munkres K.D.; Rana R.S.
CS Laboratory of Molecular Biology, The University of Wisconsin, Madison, WI 53706, United States
SO AGE, (1984) 7/2 (30-35).
CODEN: AGEEDB
CY United States
LA English
AB Short-lived conidial longevity mutants of **Neurospora** were studied. Mutations at a number of closely-linked and probably functionally-redundant genes lead to deficiency of five antioxygenic enzymes, including **superoxide** dismutase. The results of this investigation indicate that: 1) the mutants are deficient in 3',5'-cyclic adenosine monophosphate (**cAMP**); 2) their survival is enhanced by dietary **cAMP**, or 3',5'-cylic guanosine monophosphate (cGMP), or antioxidants and; 3) dietary cGMP enhances wild-type levels of **superoxide** dismutase isozymes. The results support and extend the hypotheses that: 1) the genes regulate cyclic nucleotide concentration which, in turn,

regulates the level of **superoxide** dismutase; 2) the genes are functionally-redundant and; 3) dietary antioxidants may enhance survival by supplanting the function of the deficient antioxygenic enzymes.

CC 004.01.03.00.00.
004.05.01.00.00.
020.01.01.00.00.
020.01.02.00.00.

CT EMTAGS: preliminary communication (0004); methodology (0130); heredity (0137); biological model (0502); nonhuman (0777); fungus (0763)
Medical Descriptors:
*longevity
*genetics
***neurospora crassa**
antioxidant agent

=> log y

COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	6.99	7.14

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* * * * * * * * * * * * * * * * STN  Columbus  * * * * * * * * * * * * * * * *

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=> file caplus, embase, biosis, medline, WIPDS\

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'WIPDS' IS NOT A VALID FILE NAME
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that are available. If you have requested multiple files, you can
specify a corrected file name or you can enter "IGNORE" to continue
accessing the remaining file names entered.
ENTER A FILE NAME OR (IGNORE):END

=> FILE CAPLUS, BIOSIS, EMBASE, MEDLINE

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FULL ESTIMATED COST	0.45	0.45

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=> D 1983:447701

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FILE command to enter that file, and re-enter the DISPLAY ACC
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FULL ESTIMATED COST	2.07	2.52

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FILE COVERS 1967 - 8 May 1998 VOL 128 ISS 19
FILE LAST UPDATED: 8 May 1998 (980508/ED)

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of all non-structural data from the REGISTRY file. Enter HELP FIRST for more information.

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'1983:447701' MUST END IN '/Q', '/A', '/L', '/S' OR '/B'
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=> S HYDROXYLETHYL AND RUTOSIDE

```
          127 HYDROXYLETHYL
          356 RUTOSIDE
L1          0 HYDROXYLETHYL AND RUTOSIDE
```

=>

=> FILE CAPLUS, BIOSIS, MEDLINE, EMBASE

COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	3.30	5.82

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=> S RUTOSIDE AND HYDROXYETHYL

L2 612 RUTOSIDE AND HYDROXYETHYL

=> S MICROVASCULAR AND l2

L3 11 MICROVASCULAR AND L2

=> D 13 1-11

L3 ANSWER 1 OF 11 CAPLUS COPYRIGHT 1998 ACS
AN 1989:400458 CAPLUS
DN 111:458
TI Effects of **hydroxyethyl** rutosides upon the permeability of single capillaries in the frog mesentery
AU Blumberg, Sara; Clough, Geraldine; Michel, Charles
CS Med. Sch., St. Mary's Hosp., London, W2 1PG, UK
SO Br. J. Pharmacol. (1989), 96(4), 913-19
CODEN: BJPCBM; ISSN: 0007-1188
DT Journal
LA English

L3 ANSWER 2 OF 11 CAPLUS COPYRIGHT 1998 ACS
AN 1983:447701 CAPLUS
DN 99:47701
TI Inhibitory effect of the flavonoid O-(.beta.-**hydroxyethyl**) **rutoside** on increased **microvascular** permeability induced by various agents in rat skin
AU Gerdin, Bengt; Svensjoe, Erik
CS Inst. For. Med., Univ. Uppsala, Uppsala, Swed.
SO Int. J. Microcirc.: Clin. Exp. (1983), 2(1), 39-46
CODEN: IMCEDT; ISSN: 0167-6865
DT Journal
LA English

L3 ANSWER 3 OF 11 CAPLUS COPYRIGHT 1998 ACS
AN 1978:609023 CAPLUS
DN 89:209023
TI The effect of O-(.beta.-**hydroxyethyl**)-**rutoside** (HR) on macromolecular leakage, thrombosis and haemostasis in experimental animals
AU Bergqvist, D.; Svensjo, E.; Arfors, K. E.
CS Dep. Exp. Med., Pharmacia AB, Uppsala, Swed.
SO Upsala J. Med. Sci. (1978), 83(2), 123-7
CODEN: UJMSAP; ISSN: 0300-9734
DT Journal
LA English

L3 ANSWER 4 OF 11 CAPLUS COPYRIGHT 1998 ACS
AN 1976:177566 CAPLUS
DN 84:177566
TI Effect of inhibition of PGE2-activity on FITC-dextran permeability in the hamster microvasculature
AU Svensjo, E.; Arfors, K. E.; Arturson, G.
CS Dep. Exp. Med., Pharm. AB, Uppsala, Swed.
SO Bibl. Anat. (1975), 13(Recent Adv. Crit. Microcirc. Res.), 303-4
CODEN: BIANA6
DT Journal
LA English

L3 ANSWER 5 OF 11 CAPLUS COPYRIGHT 1998 ACS
AN 1972:456568 CAPLUS
DN 77:56568
TI Effects of O-(.beta.-**hydroxyethyl**)rutosides (HR) on the increased **microvascular** permeability in experimental skin burns
AU Arturson, G.
CS Burns Cent., Univ. Hosp., Uppsala, Swed.
SO Acta Chir. Scand. (1972), 138(2), 111-117
CODEN: ACHSA3
DT Journal
LA English

L3 ANSWER 6 OF 11 BIOSIS COPYRIGHT 1998 BIOSIS
AN 78:254013 BIOSIS
DN BA66:66510
TI THE EFFECT OF O BETA **HYDROXYETHYL RUTOSIDE** ON MACRO MOLECULAR LEAKAGE THROMBOSIS AND HEMOSTASIS IN EXPERIMENTAL ANIMALS.
AU BERGQVIST D; SVENSJO E; ARFORS K E
CS DEP. EXP. MED., PHARMACIA AB, BOX 181, S-751 04 UPPSALA 1, SWED.
SO UPS J MED SCI 83 (2). 1978 123-129. CODEN: UJMSAP ISSN: 0300-9734
LA English

L3 ANSWER 7 OF 11 MEDLINE
AN 84288180 MEDLINE
DN 84288180

TI Inhibitory effect of the flavonoid O-(beta-**hydroxyethyl**)-**rutoside** on increased **microvascular** permeability induced by various agents in rat skin.
AU Gerdin B; Svensjo E
SO INTERNATIONAL JOURNAL OF MICROCIRCULATION: CLINICAL AND EXPERIMENTAL, (1983) 2 (1) 39-46.
Journal code: GSY. ISSN: 0167-6865.
CY Netherlands
DT Journal; Article; (JOURNAL ARTICLE)
LA English
FS Priority Journals
EM 198412

L3 ANSWER 8 OF 11 MEDLINE
AN 78205374 MEDLINE
DN 78205374
TI The effect of O-(beta-**hydroxyethyl**)-**rutoside** (HR) on macromolecular leakage, thrombosis and haemostasis in experimental animals.
AU Bergqvist D; Svensjo E; Arfors K E
SO UPSALA JOURNAL OF MEDICAL SCIENCES, (1978) 83 (2) 123-7.
Journal code: WRG. ISSN: 0300-9734.
CY Sweden
DT Journal; Article; (JOURNAL ARTICLE)
LA English
FS Priority Journals
EM 197810

L3 ANSWER 9 OF 11 EMBASE COPYRIGHT 1998 ELSEVIER SCI. B.V.
AN 94075678 EMBASE
TI The antioxidant properties of five O-(.beta.-**hydroxyethyl**)-rutosides of the flavonoid mixture venoruton.
AU Haenen G.R.M.M.; Jansen F.P.; Bast A.
CS Department of Pharmacochemistry, Faculty of Chemistry, Vrije Universiteit, De Boelelaan 1083, 1081 HV Amsterdam, Netherlands
SO PHLEBOLOGY, (1993) 8/SUPPL. 1 (10-17).
ISSN: 0268-3555 CODEN: PHLEEF
CY United Kingdom
DT Journal
FS 009 Surgery
030 Pharmacology
037 Drug Literature Index
LA English
SL English

L3 ANSWER 10 OF 11 EMBASE COPYRIGHT 1998 ELSEVIER SCI. B.V.
AN 79187267 EMBASE
TI Effect of HR (O-(.beta.-**hydroxyethyl**)-**rutoside**) on increased **microvascular** permeability to macromolecules induced by histamine, bradykinin and fibrin degradation products.
AU Gerdin B.; Svensjo E.
CS Inst. Forens. Med., Univ. Uppsala, Sweden
SO MICROVASC. RES., (1979) 17/3II (S105).
CODEN: MIVRA6
CY United States
LA English

L3 ANSWER 11 OF 11 EMBASE COPYRIGHT 1998 ELSEVIER SCI. B.V.
AN 75025298 EMBASE
TI Experimental diabetic retinopathy.
AU Leuenberger P.M.; Beauchemin M.L.; Babel J.
CS Clin. Univ. Ophtalmol., Geneve, Switzerland
SO ARCH.OPHTAL. (Paris), (1974) 34/4 (289-302).
CODEN: AROHA8
LA English

=> D 13 8 AB

L3 ANSWER 8 OF 11 MEDLINE
AB O-(beta-**hydroxyethyl**)-**rutoside** (HR) (Venoruton, Zyma AS, Nyon, Switzerland) has been investigated experimentally to evaluate the effect on **microvascular** permeability and thromboembolism. Permeability to macromolecules is diminished in a hamster cheek-pouch model. Haemostatic plug formation is impaired whereas laser-induced intravascular platelet aggregation is uninfluenced. There is a small but insignificant protection against sodium morrhuate (Eli Lilly and Co., Indianapolis, Indiana) induced femoral vein thrombosis.

=> D 13 9-10 AB

L3 ANSWER 9 OF 11 EMBASE COPYRIGHT 1998 ELSEVIER SCI. B.V.
AB Objective: To investigate the antioxidant properties of the five main constituents of the flavonoid preparation O-(.beta.-**hydroxyethyl**)-rutosides, which may be related to its protective effect on **microvascular** permeability. The five components were 7-**hydroxyethyl rutoside** (Zy 15077), 7,4'-dihydroxyethyl **rutoside** (Zy 15533), 7,3',4'-trihydroxyethyl **rutoside** (Zy 15534), 5,7,3',4'-tetrahydroxyethyl **rutoside** (Zy 15535) and 7,3',4'-trihydroxyethyl quercetin (Zy 15529). Methods: (1) Measurement of hydroxyl radical scavenging, using the deoxyribose method which measures the generation of thiobarbituric acid (TBA)-reactive material generated by hydrogen peroxide, ascorbate and ferric chloride. This was performed with and without the iron chelator EDTA and flavonoid concentrations ranging from 100 to 500 .mu.M. (2) Lipid peroxidation in rat liver microsomes was measured using two methods: (a) measurement of TBA-reactive material induced by ferrous sulphate and ascorbate; (b) measurement of the fall in oxygen tension induced by ferrous sulphate. The flavonoids were studied at a concentration of 400 .mu.M. Results: (1) The potency of hydroxyl radical scavenging (with EDTA) was directly proportional to the degree of hydroxyethylation of the molecules, i.e. Zy 15535 was the most active and Zy 15077 the least. However, for site-specific scavenging (i.e. without EDTA) this order was reversed, Zy 15077 being the most potent. Separate experiments confirmed that this was due to the iron chelating properties of the flavonoids. (2) Both series of experiments on lipid peroxidation yielded the same results, i.e. Zy 15077 (and Zy 15529) were the most active and Zy 15535 was almost inactive. Conclusions: The high potency of Zy 15077 and Zy 15529 as inhibitors of lipid peroxidation are related to their site-specific scavenging activity, resulting from iron chelation.

L3 ANSWER 10 OF 11 EMBASE COPYRIGHT 1998 ELSEVIER SCI. B.V.

=> S EXOGENOUS(w) CATALASE

L4 307 EXOGENOUS(W) CATALASE

=> S 307 AND SUPEROXIDE DISMUTASE

L5 28 307 AND SUPEROXIDE DISMUTASE

=> S 14 AND SUPEROXIDE DISMUTASE

L6 95 L4 AND SUPEROXIDE DISMUTASE

=> S 16 AND GLUTATHIONE PEROXIDASE

L7 13 L6 AND GLUTATHIONE PEROXIDASE

=> S ASCORB? AND 17

L8 0 ASCORB? AND L7

=> D 17 1-13

L7 ANSWER 1 OF 13 CAPLUS COPYRIGHT 1998 ACS
AN 1993:144843 CAPLUS
DN 118:144843
TI Changes in antioxidant enzymes in isolated cardiac myocytes subjected to hypoxia-reoxygenation
AU Kirshenbaum, Lorrie A.; Singal, Pawan K.
CS Res. Cent., St. Boniface Gen. Hosp., Winnipeg, MB, Can.
SO Lab. Invest. (1992), 67(6), 796-803
CODEN: LAINAW; ISSN: 0023-6837
DT Journal
LA English

L7 ANSWER 2 OF 13 CAPLUS COPYRIGHT 1998 ACS
AN 1990:510606 CAPLUS
DN 113:110606
TI Hydrogen peroxide is the most toxic oxygen species for Onchocerca cervicalis microfilariae
AU Callahan, H. L.; Crouch, R. K.; James, E. R.
CS Dep. Ophthalmol., Medical Univ. South Carolina, Charleston, SC, 29425, USA
SO Parasitology (1990), 100(3), 407-15
CODEN: PARAAE; ISSN: 0031-1820
DT Journal
LA English

L7 ANSWER 3 OF 13 CAPLUS COPYRIGHT 1998 ACS
AN 1980:584198 CAPLUS
DN 93:184198
TI The role of superoxide in the destruction of erythrocyte targets by human neutrophils
AU Weiss, Stephen J.
CS Simpson Mem. Inst., Univ. Michigan, Ann Arbor, MI, 48109, USA
SO J. Biol. Chem. (1980), 255(20), 9912-17
CODEN: JBCHA3; ISSN: 0021-9258
DT Journal
LA English

L7 ANSWER 4 OF 13 BIOSIS COPYRIGHT 1998 BIOSIS
AN 93:137888 BIOSIS
DN BA95:70688
TI CHANGES IN ANTIOXIDANT ENZYMES IN ISOLATED CARDIAC MYOCYTES SUBJECTED TO HYPOXIA-REOXYGENATION.
AU KIRSHENBAUM L A; SINGAL P K
CS ST. BONIFACE GENERAL HOSP. RES. CENT., 351 TACHE AVE., WINNIPEG, MANITOBA R2H 2A6, CAN.
SO LAB INVEST 67 (6). 1992. 796-803. CODEN: LAINAW ISSN: 0023-6837
LA English

L7 ANSWER 5 OF 13 BIOSIS COPYRIGHT 1998 BIOSIS
AN 90:376983 BIOSIS
DN BA90:63664
TI HYDROGEN PEROXIDE IS THE MOST TOXIC OXYGEN SPECIES FOR ONCHOCERCA-CERVICALIS MICROFILARIAE.
AU CALLAHAN H L; CROUCH R K; JAMES E R

CS DEP. BIOLOGICAL CHEM. AND MOL. PHARMACOL., HARVARD MED. SCH., BOSTON, MASS. 02115.
SO PARASITOLOGY 100 (3). 1990. 407-416. CODEN: PARAAE ISSN: 0031-1820
LA English

L7 ANSWER 6 OF 13 BIOSIS COPYRIGHT 1998 BIOSIS
AN 81:194304 BIOSIS
DN BA71:64296
TI ROLE OF SUPER OXIDE IN THE DESTRUCTION OF ERYTHROCYTE TARGETS BY HUMAN NEUTROPHILS.
AU WEISS S J
CS SIMPSON MEMORIAL INST., UNIV. OF MICHIGAN, ANN ARBOR, MICH. 48109.
SO J BIOL CHEM 255 (20). 1980. 9912-9917. CODEN: JBCHA3 ISSN: 0021-9258
LA English

L7 ANSWER 7 OF 13 MEDLINE
AN 93366068 MEDLINE
DN 93366068
TI Antioxidant protection against oxidant-induced damage in cultured gastric mucosal cells.
AU Hiraishi H; Yajima N; Yamaguchi N; Ishida M; Katoh Y; Harada T; Terano A; Ivey K J
CS Second Department of Internal Medicine, Dokkyo University School of Medicine, Tochigi, Japan.
SO GASTROENTEROLOGIA JAPONICA, (1993 May) 28 Suppl 5 132-8.
Journal code: FHY. ISSN: 0435-1339.
CY Japan
DT Journal; Article; (JOURNAL ARTICLE)
LA English
FS Priority Journals
EM 199312

L7 ANSWER 8 OF 13 MEDLINE
AN 93095396 MEDLINE
DN 93095396
TI Changes in antioxidant enzymes in isolated cardiac myocytes subjected to hypoxia-reoxygenation.
AU Kirshenbaum L A; Singal P K
CS Division of Cardiovascular Sciences, St. Boniface General Hospital Research Center, Winnipeg, Manitoba, Canada..
SO LABORATORY INVESTIGATION, (1992 Dec) 67 (6) 796-803.
Journal code: KZ4. ISSN: 0023-6837.
CY United States
DT Journal; Article; (JOURNAL ARTICLE)
LA English
FS Priority Journals; Cancer Journals
EM 199303

L7 ANSWER 9 OF 13 MEDLINE
AN 90301396 MEDLINE
DN 90301396
TI Hydrogen peroxide is the most toxic oxygen species for Onchocerca cervicalis microfilariae.
AU Callahan H L; Crouch R K; James E R
CS Department of Ophthalmology, Medical University of South Carolina, Charleston 29425.
NC EY05757 (NEI)
EY06462 (NEI)
EY07542 (NEI)
SO PARASITOLOGY, (1990 Jun) 100 Pt 3 407-15.
Journal code: OR0. ISSN: 0031-1820.
CY ENGLAND: United Kingdom
DT Journal; Article; (JOURNAL ARTICLE)
LA English
FS Priority Journals

EM 199010

L7 ANSWER 10 OF 13 MEDLINE
AN 81046800 MEDLINE
DN 81046800
TI The role of superoxide in the destruction of erythrocyte targets by human neutrophils.
AU Weiss S J
NC RO1-AI-16524-01 (NIAID)
SO JOURNAL OF BIOLOGICAL CHEMISTRY, (1980 Oct 25) 255 (20) 9912-7.
Journal code: HIV. ISSN: 0021-9258.
CY United States
DT Journal; Article; (JOURNAL ARTICLE)
LA English
FS Priority Journals
EM 198103

L7 ANSWER 11 OF 13 EMBASE COPYRIGHT 1998 ELSEVIER SCI. B.V.
AN 93024630 EMBASE
TI Changes in antioxidant enzymes in isolated cardiac myocytes subjected to hypoxia-reoxygenation.
AU Kirshenbaum L.A.; Singal P.K.
CS St. Boniface General Hosp. Res. Ctr., 351 Tache Ave., Winnipeg, Man. R2H 2A6, Canada
SO LAB. INVEST., (1992) 67/6 (796-803).
ISSN: 0023-6837 CODEN: LAINAW
CY United States
DT Journal
FS 005 General Pathology and Pathological Anatomy
018 Cardiovascular Diseases and Cardiovascular Surgery
029 Clinical Biochemistry
LA English
SL English

L7 ANSWER 12 OF 13 EMBASE COPYRIGHT 1998 ELSEVIER SCI. B.V.
AN 90333719 EMBASE
TI Hydrogen peroxide is the most toxic oxygen species for Onchocerca cervicalis microfilariae.
AU Callahan H.L.; Crouch R.K.; James E.R.
CS Department of Ophthalmology, Medical University of South Carolina, Charleston, SC 29425, United States
SO PARASITOLOGY, (1990) 100/3 (407-415).
ISSN: 0031-1820 CODEN: PARAAE
CY United Kingdom
DT Journal
FS 004 Microbiology
LA English

L7 ANSWER 13 OF 13 EMBASE COPYRIGHT 1998 ELSEVIER SCI. B.V.
AN 81051678 EMBASE
TI The role of superoxide in the destruction of erythrocyte targets by human neutrophils.
AU Weiss S.J.
CS Simpson Mem. Inst., Univ. Michigan, Ann Arbor, Mich. 48109, United States
SO J. BIOL. CHEM., (1980) 255/20 (9912-9917).
CODEN: JBCHA3
CY United States
LA English

=> D 17 7

L7 ANSWER 7 OF 13 MEDLINE
AN 93366068 MEDLINE

DN 93366068
TI Antioxidant protection against oxidant-induced damage in cultured gastric mucosal cells.
AU Hiraishi H; Yajima N; Yamaguchi N; Ishida M; Katoh Y; Harada T; Terano A; Ivey K J
CS Second Department of Internal Medicine, Dokkyo University School of Medicine, Tochigi, Japan.
SO GASTROENTEROLOGIA JAPONICA, (1993 May) 28 Suppl 5 132-8.
Journal code: FHY. ISSN: 0435-1339.
CY Japan
DT Journal; Article; (JOURNAL ARTICLE)
LA English
FS Priority Journals
EM 199312

=> D AB

L8 HAS NO ANSWERS
L4 307 SEA EXOGENOUS(W) CATALASE
L6 95 SEA L4 AND SUPEROXIDE DISMUTASE
L7 13 SEA L6 AND GLUTATHIONE PEROXIDASE
L8 0 SEA ASCORB? AND L7

=> D l7 13 AB

L7 ANSWER 13 OF 13 EMBASE COPYRIGHT 1998 ELSEVIER SCI. B.V.
AB Human neutrophils exposed to the soluble stimulus, phorbol myristate acetate, generate a flux of O2(.-) which can destroy human erythrocyte targets. Under optimal conditions, each neutrophil was capable of lysing almost 10 erythrocyte targets. Hemoglysis was inhibited by exogenous copper-zince or iron **superoxide dismutase** while neither heat-denatured enzyme nor albumin inhibited cytotoxicity. Although neutrophils can also generate H2O2, neither catalase nor a glutathion-**glutathione peroxidase** system inhibited hemolysis. Hemolysis was prevented by conversion of the hemoglobin to carbon monoxyhemoglobin, suggesting an intracellular mechanism of cytotoxicity. Conversion of hemoglobin to methemoglobin by nitrite treatment did not impair neutrophil-mediated hemolysis. However, nitrite-treated targets were not protected by **superoxide dismutase**, while **exogenous catalase** inhibited cytotoxicity, suggesting a potential role for H2O2 and methemoglobin. H2O2 and methemoglobin are known to interact to form an oxidant complex whose cytotoxic potential was underlined by the marked sensitivity of nitrite-treated cells to commercial H2O2. It is proposed that neutrophil-derived O2(.-) oxidizes oxyhemoglobin to generate methemoglobin and H2O2 which interact to form a cytotoxic complex capable of hemolyzing the erythrocyte target.

=> S Camp AND OXIDAT?

L9 1395 CAMP AND OXIDAT?

=> S CAMP (p) OXIDAT?

PROXIMITY OPERATOR LEVEL NOT CONSISTENT WITH
FIELD CODE - 'AND' OPERATOR ASSUMED 'CAMP (P) OXIDAT?'
L10 1180 CAMP (P) OXIDAT?

=> S ANTIOXIDANT# AND Camp

L11 209 ANTIOXIDANT# AND CAMP

=> S L11 AND SUPEROXIDE DISMUTASE

L12 33 L11 AND SUPEROXIDE DISMUTASE

=> D l12 1-33 TI,SO,PY

L12 ANSWER 1 OF 33 CAPLUS COPYRIGHT 1998 ACS
TI Enhanced inhibition by melatonin of .alpha.-adrenoceptor-induced aortic contraction and inositol phosphate production in vascular smooth muscle cells from spontaneously hypertensive rats
SO J. Hypertens. (1998), 16(3), 339-347
CODEN: JOHYD3; ISSN: 0263-6352
PY 1998

L12 ANSWER 2 OF 33 CAPLUS COPYRIGHT 1998 ACS
TI Overexpression of manganese **superoxide dismutase** selectively modulates the activity of Jun-associated transcription factors in fibrosarcoma cells
SO Cancer Res. (1997), 57(23), 5265-5271
CODEN: CNREA8; ISSN: 0008-5472
PY 1997

L12 ANSWER 3 OF 33 CAPLUS COPYRIGHT 1998 ACS
TI Protective effects of sea buckthorn oil on experimental cold injury
SO Hebei Yike Daxue Xuebao (1997), 18(4), 206-208
CODEN: HEDXFQ; ISSN: 1007-3205
PY 1997

L12 ANSWER 4 OF 33 CAPLUS COPYRIGHT 1998 ACS
TI The manganese **superoxide dismutase** gene of Drosophila: structure, expression, and evidence for regulation by MAP kinase
SO DNA Cell Biol. (1997), 16(4), 391-399
CODEN: DCEBE8; ISSN: 1044-5498
PY 1997

L12 ANSWER 5 OF 33 CAPLUS COPYRIGHT 1998 ACS
TI Vasodilatory effects of a salen-manganese complex with potent oxyradical scavenger activities
SO J. Vasc. Res. (1997), 34(1), 49-57
CODEN: JVREE9; ISSN: 1018-1172
PY 1997

L12 ANSWER 6 OF 33 CAPLUS COPYRIGHT 1998 ACS
TI Enhancement of oxidative stress tolerance in transgenic tobacco plants overproducing Fe-**superoxide dismutase** in chloroplasts
SO Plant Physiol. (1996), 112(4), 1703-1714
CODEN: PLPHAY; ISSN: 0032-0889
PY 1996

L12 ANSWER 7 OF 33 CAPLUS COPYRIGHT 1998 ACS
TI Solution for prolonged organ preservation
SO U.S., 71 pp. Cont.-in-part of U.S. 5,370,989.
CODEN: USXXAM
PY 1996

L12 ANSWER 8 OF 33 CAPLUS COPYRIGHT 1998 ACS
TI Downregulation of Cu/Zn **superoxide dismutase** leads to cell death via the nitric oxide-peroxynitrite pathway
SO J. Neurosci. (1996), 16(1), 253-61
CODEN: JNRSDS; ISSN: 0270-6474
PY 1996

L12 ANSWER 9 OF 33 CAPLUS COPYRIGHT 1998 ACS

TI Inhibitory effects of **superoxide dismutase** and cyclic guanosine 3',5'-monophosphate on estrogen production in cultured rat granulosa cells
SO Endocrinology (1995), 136(12), 5533-9
CODEN: ENDOAO; ISSN: 0013-7227
PY 1995

L12 ANSWER 10 OF 33 CAPLUS COPYRIGHT 1998 ACS
TI Regulation of nerve growth factor secretion in L-M cells by catechol derivatives
SO Neurosci. Res. (Shannon, Irel.) (1993), 17(1), 71-75
CODEN: NERADN; ISSN: 0168-0102
PY 1993

L12 ANSWER 11 OF 33 CAPLUS COPYRIGHT 1998 ACS
TI Mechanisms of action of Pseudomonas aeruginosa pyocyanin on human ciliary beat in vitro
SO Infect. Immun. (1993), 61(7), 2848-53
CODEN: INFIBR; ISSN: 0019-9567
PY 1993

L12 ANSWER 12 OF 33 CAPLUS COPYRIGHT 1998 ACS
TI Mechanism of fluoride action on periodontium tissue
SO Fiziol. Zh. (Kiev) (1992), 38(2), 85-90
CODEN: FIZHDO; ISSN: 0201-8489
PY 1992

L12 ANSWER 13 OF 33 CAPLUS COPYRIGHT 1998 ACS
TI Pharmacogenetics of cyclic guanylate, **antioxidants**, and **antioxidant** enzymes in Neurospora
SO Free Radical Biol. Med. (1990), 9(1), 29-38
CODEN: FRBMEH; ISSN: 0891-5849
PY 1990

L12 ANSWER 14 OF 33 CAPLUS COPYRIGHT 1998 ACS
TI Lung injury in Fischer but not Sprague-Dawley rats after short-term hyperoxia
SO Am. J. Physiol. (1990), 259(6, Pt. 1), L451-L458
CODEN: AJPHAP; ISSN: 0002-9513
PY 1990

L12 ANSWER 15 OF 33 CAPLUS COPYRIGHT 1998 ACS
TI Genetic control of cellular longevity in Neurospora crassa: a relationship between cyclic nucleotides, **antioxidants**, and antioxygenic enzymes
SO Age (Omaha, Nebr.) (1984), 7(2), 30-5
CODEN: AGEEDB; ISSN: 0161-9152
PY 1984

L12 ANSWER 16 OF 33 BIOSIS COPYRIGHT 1998 BIOSIS
TI Inhibitory effects of **superoxide dismutase** and cyclic guanosine 3',5-monophosphate on estrogen production in cultured rat granulosa cells.
SO Endocrinology 136 (12). 1995. 5533-5539. ISSN: 0013-7227

L12 ANSWER 17 OF 33 BIOSIS COPYRIGHT 1998 BIOSIS
TI REGULATION OF NERVE GROWTH FACTOR SECRETION IN L-M CELLS BY CATECHOL DERIVATIVES.
SO NEUROSCI RES 17 (1). 1993. 71-75. CODEN: NERADN ISSN: 0168-0102

L12 ANSWER 18 OF 33 BIOSIS COPYRIGHT 1998 BIOSIS
TI MECHANISMS OF ACTION OF PSEUDOMONAS-AERUGINOSA PYOCYANIN ON HUMAN CILIARY BEAT IN-VITRO.
SO INFECT IMMUN 61 (7). 1993. 2848-2853. CODEN: INFIBR ISSN: 0019-9567

L12 ANSWER 19 OF 33 BIOSIS COPYRIGHT 1998 BIOSIS
TI ON BIOCHEMICAL HETEROGENEITY OF RHEUMATOID ARTHRITIS.
SO TER ARKH 64 (5). 1992. 17-20. CODEN: TEARAI ISSN: 0040-3660

L12 ANSWER 20 OF 33 BIOSIS COPYRIGHT 1998 BIOSIS
TI PHARMACOGENETICS OF CYCLIC GUANYLATE **ANTIOXIDANTS** AND **ANTIOXIDANT** ENZYMES IN NEUROSPORA.
SO FREE RADICAL BIOL MED 9 (1). 1990. 29-38. CODEN: FRBMEH ISSN: 0891-5849

L12 ANSWER 21 OF 33 BIOSIS COPYRIGHT 1998 BIOSIS
TI GENETIC CONTROL OF CELLULAR LONGEVITY IN NEUROSPORA-CRASSA A RELATIONSHIP BETWEEN CYCLIC NUCLEOTIDES **ANTIOXIDANTS** AND ANTIOXYGENIC ENZYMES.
SO AGE (OMAHA) 7 (2). 1984. 30-35. CODEN: AGEEDB ISSN: 0161-9152

L12 ANSWER 22 OF 33 MEDLINE
TI Oxidative modulation of cyclic AMP-dependent protein kinase in human fibroblasts: possible role in psoriasis.
SO FREE RADICAL BIOLOGY AND MEDICINE, (1997) 22 (4) 623-32.
Journal code: FRE. ISSN: 0891-5849.
PY 1997

L12 ANSWER 23 OF 33 MEDLINE
TI Inhibitory effects of **superoxide dismutase** and cyclic guanosine 3',5'-monophosphate on estrogen production in cultured rat granulosa cells.
SO ENDOCRINOLOGY, (1995 Dec) 136 (12) 5533-9.
Journal code: EGZ. ISSN: 0013-7227.
PY 1995

L12 ANSWER 24 OF 33 MEDLINE
TI Regulation of nerve growth factor secretion in L-M cells by catechol derivatives.
SO NEUROSCIENCE RESEARCH, (1993 Jun) 17 (1) 71-5.
Journal code: OAQ. ISSN: 0168-0102.
PY 1993

L12 ANSWER 25 OF 33 MEDLINE
TI Mechanisms of action of Pseudomonas aeruginosa pyocyanin on human ciliary beat in vitro.
SO INFECTION AND IMMUNITY, (1993 Jul) 61 (7) 2848-53.
Journal code: GO7. ISSN: 0019-9567.
PY 1993

L12 ANSWER 26 OF 33 MEDLINE
TI [The biochemical heterogeneity of rheumatoid arthritis].
O biokhimicheskoi geterogennosti revmatoidnogo artrita.
SO TERAPEVTICHESKII ARKHIV, (1992) 64 (5) 17-20.
Journal code: VLU. ISSN: 0040-3660.
PY 1992

L12 ANSWER 27 OF 33 MEDLINE
TI Pharmacogenetics of cyclic guanylate, **antioxidants**, and **antioxidant** enzymes in Neurospora.
SO FREE RADICAL BIOLOGY AND MEDICINE, (1990) 9 (1) 29-38.
Journal code: FRE. ISSN: 0891-5849.
PY 1990

L12 ANSWER 28 OF 33 EMBASE COPYRIGHT 1998 ELSEVIER SCI. B.V.
TI Oxidative modulation of cyclic AMP-dependent protein kinase in human fibroblasts: Possible role in psoriasis.
SO Free Radical Biology and Medicine, (1997) 22/4 (623-632).
Refs: 68
ISSN: 0891-5849 CODEN: FRBMEH

PY 1997

L12 ANSWER 29 OF 33 EMBASE COPYRIGHT 1998 ELSEVIER SCI. B.V.
TI Inhibitory effects of **superoxide dismutase** and cyclic guanosine 3',5'- monophosphate on estrogen production in cultured rat granulosa cells.
SO Endocrinology, (1995) 136/12 (5533-5539).
ISSN: 0013-7227 CODEN: ENDOAO
PY 1995

L12 ANSWER 30 OF 33 EMBASE COPYRIGHT 1998 ELSEVIER SCI. B.V.
TI Regulation of nerve growth factor secretion in L-M cells by catechol derivatives.
SO NEUROSCI. RES., (1993) 17/1 (71-75).
ISSN: 0168-0102 CODEN: NERADN
PY 1993

L12 ANSWER 31 OF 33 EMBASE COPYRIGHT 1998 ELSEVIER SCI. B.V.
TI Mechanisms of action of Pseudomonas aeruginosa pyocyanin on human ciliary beat in vitro.
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PY 1984

=> D
L12 33 AB

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AB Short-lived conidial longevity mutants of Neurospora were studied. Mutations at a number of closely-linked and probably functionally-redundant genes lead to deficiency of five antioxygenic enzymes, including **superoxide dismutase**. The results of this investigation indicate that: 1) the mutants are deficient in 3',5'-cyclic adenosine monophosphate (**cAMP**); 2) their survival is enhanced by dietary **cAMP**, or 3',5'-cylic guanosine monophosphate (cGMP), or **antioxidants** and; 3) dietary cGMP enhances wild-type levels of **superoxide dismutase** isozymes. The results support and extend the hypotheses that: 1) the genes regulate cyclic nucleotide concentration which, in turn, regulates the level of **superoxide dismutase**; 2) the genes are functionally-redundant and; 3) dietary **antioxidants** may enhance survival by supplanting the function of the deficient antioxygenic enzymes.

=> LOG Y

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